ABSTRACT OF THE DISCLOSURE

A conveyor oven has a modulating gas valve which raises and lowers the thermal output of a burner that heats the oven. A bypass line passes a minimum amount of gas to prevent the burner from completely shutting down during periods while the oven remains above a threshold demand for more heat. Electrical isolation is provided between temperature controlling devices to prevent an electrical feed back which might otherwise prevent a complete shut down of the oven during hazardous conditions.